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357041

NAVISTAR.

July 1, 1994

Mr. Eric D. Runkel
Environmental Protection Specialist
Remedial Project Management Section
Bureau of Land
Illinois Environmental Protection Agency
2200 Churchill Road
P.O. Box 19276
Springfield, IL 62794-9276

Dear Eric:

Thank you for facilitating a very productive meeting among the Illinois Environmental Protection Agency (IEPA), United States Environmental Protection Agency (USEPA), U.S. Army Corps of Engineers (USACOE), U.S. Department of Commerce, Economic Development Administration (EDA), and Navistar/ERM-Midwest on the proposed Phase II Scope of Work (SOW) for the above site on May 13, 1994. Also, thank you for arranging the next meeting on July 6, 1994.

Navistar/ERM received last week from USACOE the revised SOW and responses to comments. We have reviewed said documents and have prepared the attached comments for your consideration (Attachment 1).

While USACOE has taken, favorably, into consideration several of Navistar/ERM's comments, we continue to feel strongly about the following issues which USACOE had not agreed to. We ask you to seriously consider:

- 1) Eliminating from Phase II SOW, the sampling and analysis of water and sediments from conduits, manholes, outfalls and storm catch basins.
- 2) Using Illinois Class II groundwater standards for the site.

Support for the above issues is presented in detail in the attached comments.

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Eric, based on the optimistic assumption that we can have substantial agreement on the Phase II SOW during our July 6, 1994 meeting, I have prepared a proposed schedule of activities for Navistar's voluntary cleanup of Wisconsin Steel Site under IEPA oversight (Attachment 2). As we have previously discussed, I am interested in obtaining an estimate of IEPA's oversight costs for this project.

Again, thank you for your continued cooperation, and please call me at (312) 836-3051 if you have any questions. See you on July 6.

Sincerely,



Edith M. Ardiente, P.E.
Director, Environmental Affairs

cc: (w/attachments)

Malcolm J. Todd, P.E. - USACOE
Frank J. Monteferrante, Ph.D. - EDA
Laura J. Ripley - USEPA Region V
Jeanette S. Zeldin - Navistar

cc: (w/o attachments)

Larry Eastep - IEPA
Gary King - IEPA
Robert Boardman - Navistar
Dean Stanley - Navistar
Larry Levine - Latham & Watkins
Roy Ball - ERM

epaw13c.ema

ATTACHMENT 2

**NAVISTAR'S VOLUNTARY CLEANUP OF WISCONSIN STEEL
UNDER IEPA OVERSIGHT
Proposed Schedule of Activities**

Activity	Start	Finish
U.S. Corps of Engineers completes Phase II work plan	3/15/94	6/29/94
Request review and evaluation services from IEPA		7/15/94
Navistar submits service agreement and prepayment		7/31/94
Complete Health & Safety plan, Field Sampling plan, and Quality Assurance plan	7/15/94	8/15/94
Agency review and approval of work plans	8/15/94	9/15/94
Implement work plans with agency oversight	9/30/94	12/31/94
Complete Investigation Report/Health Risk Assessment	1/1/95	3/31/95
Cleanup objectives established by IEPA	4/1/95	5/31/95
Prepare Remedial Action Plan (RAP)	6/1/95	7/31/95
IEPA review and approval of Remedial Action Plan	8/1/95	9/30/95
Prepare specification, review bids and award contract	10/1/95	1/31/96
Conduct remedial action	1/31/96	10/31/96
Perform confirmation sampling and analysis	8/1/96	10/31/96
Meet cleanup objectives/Submit report to IEPA		11/30/96
IEPA sign-off		12/31/96
Post-closure GW monitoring, if required	1996	2001

Attachment 1

**COMMENTS ON THE REVISED STATEMENT OF WORK
PHASE II SAMPLING AND ANALYSIS
PREPARED BY THE U.S. ARMY CORPS OF ENGINEERS**

JUNE 29, 1994

PREPARED FOR:

NAVISTAR INTERNATIONAL TRANSPORTATION CORPORATION

PREPARED BY:

**ENVIRONMENTAL RESOURCES MANAGEMENT-NORTH CENTRAL, INC.
540 LAKE COOK ROAD, SUITE 300
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PROJECT NO. 93132RB**

**PHASE II SAMPLING AND ANALYSIS
PREPARED BY THE U.S. ARMY CORPS OF ENGINEERS
COMMENTS ON THE REVISED STATEMENT OF WORK**

Environmental Resources Management-North Central (ERM-North Central) has reviewed the Revised Draft Statement of Work for the Phase II Field Sampling and Analysis at the Wisconsin Steel Work Site (SOW), dated June 1994 as prepared by the U.S. Army Corps of Engineers (the Corps). While many of ERM's previous comments (dated April 6, 1994) were included in the revision, there are several points on which we offer additional comments. Our comments are organized to address each of the tasks included in the revised SOW.

Task 1: Additional Well Installation and Stratigraphic Borings

1. The revised SOW includes advancement of stratigraphic borings at the site as suggested in ERM-North Central's April 6, 1994 comments. As shown on the attached Table 1, ERM-North Central proposed 5 deep borings in the April comments while the revised SOW indicates that 9 deep borings should be advanced. The location of the Corps' borings correspond to the locations of the deep wells previously proposed. However, ERM-North Central intended that the borings be used to explore the site stratigraphy and determine the presence of additional water bearing units, not to sample the deep soils, per se, for contamination as the revised SOW suggests. Additionally, we feel that the deep well design proposed in the revised SOW (if installed) should follow a different design to reduce the potential of cross-contamination between the geologic units.

2. The analytical procedures for soil samples to be collected during the well installation activities has been altered in the revised Table 2-3 to include ammonia, with no rationale for the change. Also, polynuclear aromatic hydrocarbon (PAH) analysis has been replaced by a semivolatile organic compound (SVOC) scan.
3. The revised SOW states that ground water samples will be obtained from the underlying aquifer using the hydropunch, geoprobe or other technique, and the samples are to be compared to Illinois Class I ground water objectives. Until a full ground water demonstration is prepared, we feel that using Class I objectives is not warranted.
 - The geology at the site is extremely heterogeneous, as evidenced by the cross-sections and boring logs contained in the Site Characterization Interim Report. The thicknesses, as well as the composition, of each geologic unit (fill, sand and till) vary considerably throughout the site, making it difficult to clearly define the site as containing Class I or Class II ground water.
 - Based upon the site-specific geology, the site does not clearly fall into the category of Class I: Potable Resource Groundwater:
 - Class I groundwater must be located 10 feet or more below ground surface (bgs). The

groundwater at the site varies from 5 to 15 feet bgs. The water level data for the period of January through June, 1993 (Figure 3-10 and 3-11 in the Site Characterization Interim Report) shows that the water levels can vary as much as four feet in some locations.

Class I groundwater requires geologic material which is capable of a sustained of 150 gallons per day from a thickness of 15 feet or less, or exhibits a hydraulic conductivity of 1×10^{-4} cm/sec or greater. As stated in the Site Characterization Interim Report, "Recharge to the Calumet Aquifer is limited to surface infiltration and has a limited saturated thickness, making high sustained withdrawal rates unlikely." Also in the Site Characterization Interim Report, the hydraulic conductivity of the sand unit at the site reportedly is between 1.01×10^{-8} to 7.0×10^{-5} cm/sec.

The shallow groundwater in the southeast Chicago area is not used a source of drinking water, nor is there any probability that such usage would ever occur.

Given that the site does not fully conform to the definition of Class I groundwater, the variability in the site conditions, and the beneficial effect that Class II standards would provide to the project, we feel that Class II Standards are appropriate. If necessary, we will prepare a full demonstration for an adjusted standard (in accordance with 35 IAC 620.260) upon completion of the Phase II investigation. We feel strongly that the Class II standards are necessary for both economic and social development in the area, in accordance with 35 IAC 620.260(b).

In order to avoid future delays, we suggest that the revised SOW be designed to ensure that all information necessary for a groundwater reclassification petition can be gathered during the initial portion of the field work.

4. The revised SOW states that in situ permeability testing will be conducted at all new well installations using the methods employed during the Phase I investigation. This method should be reconsidered as the Phase I data was almost entirely unreliable for the till wells.
5. We do not recommend the use of the USGS wells for background water quality. The wells are a significant distance from the site and the relative flow of the ground water toward the site has not been established. Additionally, it is not certain whether the geologic units in which the wells are screened and the well construction are consistent with the existing wells.

Task 2: Monitoring Well Sampling

The analytical procedures listed in the revised Table 2-4 has deleted analysis for phenol and replaced PAH analysis with a VOC scan. Additionally, the revised SOW indicates that a procedure will need to be prepared for detecting and sampling of LNAPL and DNAPL. We recommend that the specific procedures should be proposed and agreed to prior to implementation of the SOW.

Task 3: Hot Spot Demarcation and Sampling

Table 2-7b includes additional compounds to be analyzed ~~for~~ which have not been detected above the action levels. For example, the action levels for lead and chromium are 1,000 parts per million (ppm) and 400 ppm, respectively. Table 2-7b indicates further sampling for these compounds at MW-10, although the data in the Site Characterization Interim Report indicate that lead and chromium are present at levels of 9.4 and 16.8 ppm, respectively.

Task 4: Background Sampling

While there was considerable discussion considering the location of background samples at the May 13, 1994 meeting, this task has not been significantly altered in the revised SOW. The SOW continues to mention parks, playgrounds, school yards, and cemeteries as possible locations for obtaining background samples. It is not likely that these sites represent industrial conditions or contain fill material similar to that at the Wisconsin Steel site.

Task 5: Sampling and Analysis of Water and Sediment from Conduits, Manholes, Outfalls, and Storm Catch Basins

This task has not been significantly altered in the revised SOW with the exception of the analytical parameters listed on Table 2-10 (phenol has been excluded, and SVOCs replaced PAHs). As discussed in Attachment A ERM-North Central feels strongly that this sampling will not achieve the stated objectives.

Task 6: Deep Core Sampling and Analysis from Calumet River and North and South Slips

This task has not been significantly altered in the revised statement of work, with the exception of the analytical parameters which have been changed to exclude phenols and replace PAH analysis with a SVOC scan. After a review of the report by the U.S. Fish and Wildlife Service, many of the sampling points proposed in the revised SOW are similar, although the depth of sampling and the compounds to be analyzed differ. The U.S. Fish & Wildlife Service sampling failed to provide adequate background data for use as a comparison to the site data. We recommend that if this testing is included in the final SOW, that a provision be made to obtain background sediment data as well.

Task 7: TCLP Testing

As discussed in the May 13, 1994 meeting, TCLP testing is partially appropriate only if the slag is to be removed. Such testing should follow SW-846 which is not referenced in the revised SOW.

On behalf of Navistar International Transportation Corporation, we greatly appreciate the consideration given to our April 6, 1994 comments. We feel the changes made will result in a final SOW that meets the objectives of all involved parties and results in a responsible remedial effort for the site. Presently, the areas of greatest concern are 1) the inappropriateness of Task 5, and 2) establishing an appropriate groundwater classification. As discussed in Attachment A, we feel that the sampling and tracing of sewers will require great effort while not meeting the stated objectives. Furthermore, an appropriate groundwater classification at this stage in the project will benefit the progress of this site.

TABLES

TABLE 1

**SUMMARY TABLE
PHASE II SAMPLING & ANALYSIS
WISCONSIN STEEL WORKS**

Activities	Shallow Wells	Deep Wells	Water Table Wells	Stratigraphy Borings	Shallow Borings/ Soil Samples	Background Sampling	Sampling of Conduits	River and Slip Sampling	TCLP Testing
Original Statement of Work, February 1994	3	9	4	0	35 boring locations	Yes	Yes	Yes	Yes
Revised Statement of Work, June 1994	3	Not at this time	9	9	39 locations for screening	Yes	Yes	Yes	Yes
ERM comments, April 1994 and June 1994	Relocated USACE Wells	Not at this time	Relocated USACE Wells	5	38 locations for screening	No	No	No	No

Note: Table 2-1 and Figure 2-1 included in the revised SOW do not indicate the same number of wells to be installed during Phase II. The data from the figure are included in this summary.

ATTACHMENT A

UNDERGROUND CONDUITS AT WISCONSIN STEEL WORKS

ATTACHMENT A

UNDERGROUND CONDUITS AT WISCONSIN STEEL WORKS

The revised SOW has included extensive sampling of conduits, manholes, outfalls and storm catch basins, as well as a tracer study of the sewer lines and conduits, as a means to determine the presence of possible contamination in the conduits and to map the existing sewer system. As we understand, the plan is based upon the assumptions that: (1) there is an existing sewer system that requires control, (2) there is a basic knowledge of the location of the underground sewers and conduits, and (3) the existing outfalls cannot be closed without an adverse impact to the site (i.e., storm water management problems).

At the May 13 meeting, ERM-North Central received a copy of a 1928 plat map of the water piping, sewers, etc. which was described as representative of the site. The map shows several types of conduits, including sanitary sewers, coke oven gas, electrical conduits, water supply lines (including both city water and water directly pumped from the Calumet River) and plant sewers flowing to the river. The system is complex and is not wholly represented on the map (many separate detail drawings are referenced on the map). Based in part on our review of the 1928 map, we feel that none of the assumptions listed above are correct. Accordingly, we continue to believe that the extensive sampling and tracer study proposed in the revised SOW is unnecessary. Our basis for this is as follows:

- The possible presence of contamination, per se, is not sufficient cause for conducting an extensive study. The conduits most likely to contain

contamination (coke oven gas, electrical conduit) do not lead to the Calumet River or exit the site. Additionally, sealing the process water outfalls to the river would block any direct pathway from the site. Given the complexity and various types of conduits at the site, tracing and mapping the existing system to determine potential sources of contamination would be difficult and most likely unproductive.

- Dames & Moore indicated that the flow to Outfall No. 5 (the only active outfall according to the 1987 Closure Plan) "... consisted primarily of noncontact cooling water from the blast furnace system. All process and contact cooling waters were collected, treated, and recycled to the extent possible. The excess water was diluted and discharged with the noncontact cooling water through Outfall No. 5."
- Shallow ground water at the site is typically encountered at a depth of 5 to 15 feet below ground surface, depending on the location. While the 1928 map shows only a few relative invert elevations of the sewer lines at the site, it can be assumed that most of these conduits would not have been placed below the level of the water table. Therefore, conduits would not be expected to have a direct impact on the ground water quality at the site, and any impact from contaminants leaching vertically into ground water could be effectively monitored by the existing monitoring well system. As indicated by the data from the Phase I investigation (when compared to the Illinois Ground Water Protection Act Class II Standards), there does not appear to be a significant ground water contamination problem at the site. Furthermore, 35 IAC 620.135 specifically exempts

underground waters in manmade conduits from the Illinois Groundwater Protection Act.

- The Site Characterization Interim Report prepared by the Corps indicates that "The mechanisms most likely to release contaminants to surface water at the Wisconsin Steel Works site are surface runoff, episodic overland flow, and ground water seepage."
- It is unrealistic to assume that a 66-year-old map of the piping and sewers at an industrial facility can provide an adequate description of the existing sewer system, even as a starting point for further study. When considering the quality of the map, the complexity of piping required for the mill operation, the facility modifications over time, and recent demolition activities, the 1928 map is unlikely to be usable for the purposes described in the revised SOW.
- The 1928 map does not indicate that a storm sewer system exists. It is not noted that any of the sewers were combined to include both process or sanitary flow with storm water.

In support of the above, the Site Characterization Interim Report also indicated that surface water at the Wisconsin Steel Works site is mainly overland flow. The report states "Specifically, much of the surface runoff from the site drains toward the Calumet River. Some surface runoff along the west and north side of the site may follow storm water drainage along the adjacent roads. Surface runoff reaches the Calumet River directly by

flowing over the retaining wall constructed along the river, and indirectly through a storm sewer system which empties into the river. Water has been observed flowing from two outfalls; one which empties directly into the Calumet River north of the North Slip and one which empties into the North Slip. Surface runoff also seeps into the shallow ground water which is an apparent hydraulic connection with the Calumet River."

- While there is some disagreement as to the number of currently active outfalls, most have already been closed. There are 14 outfalls shown on the 1928 map, of which were closed. As noted above, the Site Characterization Interim Report has indicated that only two outfalls are currently active. In the RCRA Closure Plan prepared by Dames & Moore in 1987, it was indicated that the northern portion of the plant had the only remaining sewer outfall, Outfall No. 5.

In summary, we feel that the assumptions upon which the need for a study of the sewer system appear to be based are incorrect. While additional sampling in known areas of contamination is justified (i.e., open pits and foundations) the proposed sampling and tracer study as described in the revised SOW is not. Considering the porous nature of the surficial soils at the site, any contamination present within the underground network of utilities would have become readily apparent in the ground water data. As mentioned previously, the current data does not indicate significant subsurface contamination. Therefore, we feel that the appropriate method of measuring the potential impact of the underground conduits is to continue to monitor the ground water, not to extensively sample and trace the pipes.